United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
Carlsbad Fish and Wildlife Office
2177 Salk Avenue, Suite 250
Carlsbad, California 92008

In Reply Refer To:
FWS-SDG-04B0004-04F0005-R004

October 4, 2016
Sent by Email

Ms. C. Magdalena Wolf
Conservation Program Manager
Naval Weapons Station Seal Beach
Detachment Fallbrook, N45WK, BLDG 1
700 Ammunition Road
Fallbrook, California 92028-3187

Subject: Reinitiation of Section 7 Consultation for the Wildland Fire Management Plan, Naval Weapons Station Seal Beach, Detachment Fallbrook, San Diego County, California

Dear Ms. Wolf:

This document responds to your email dated June 30, 2016, requesting our concurrence that proposed modifications to the Wildland Fire Management Plan (WFMP) on Naval Weapons Station Seal Beach, Detachment Fallbrook (Det. Fallbrook), San Diego County, California, is not likely to adversely affect the federally endangered Stephens' kangaroo rat (*Dipodomys stephensi*; SKR) or the federally threatened coastal California gnatcatcher (*Polioptila californica californica*; gnatcatcher), in accordance with section 7 of the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et. seq*.). A biological opinion addressing WFMP-related impacts to these species was issued by our agency to the U.S. Navy (Navy) on December 11, 2003 (FWS-SD-3506.3; currently designated as FWS-SDG-04B0004-04F0005), and was subsequently reinitiated to address modifications to the cattle grazing program and its related infrastructure (FWS-SDG-04B0004-04F0005-R001-R003). The 2004 biological opinion and the subsequent amendments are collectively referred to as the amended WFMP BO. The proposed action includes the conversion of the existing Juliett Firebreak on Det. Fallbrook to a fuelbreak (Juliett Fuelbreak).

The analysis and conclusions provided in this document are based on information provided in the Navy's June 30, 2016, email request and information compiled during the course of our consultation with the Navy on the subject project. The information and other references cited in this document constitute the best available scientific information on the status and biology of the species considered. The complete project file for this consultation is maintained at the Carlsbad Fish and Wildlife Office (CFWO).

BIOLOGICAL OPINION

DESCRIPTION OF THE PROPOSED ACTION

The existing Juliett Firebreak on Det. Fallbrook is about 5,000 feet long by 100 feet wide, totaling approximately 12 acres, and is currently maintained through annual soil disking. The Navy proposes to convert the Juliett Firebreak to a fuelbreak (Juliett Fuelbreak), where surface vegetation is controlled through annual mowing and limited herbicide application, but the underlying soil is not disked.

Conversion of the 100-foot wide firebreak to a fuelbreak will continue to allow for defensive wildland fire suppression activities at the site. Moreover, the dirt-surface road that parallels the Juliett Firebreak will continue to be maintained and function as an approximately 15-foot wide firebreak. Conversion of the Juliett Firebreak to a fuelbreak is intended to facilitate maintenance of that site in a condition that is more suitable for SKR (*e.g.*, minimal vegetation with limited soil disturbance), and the Navy anticipates that these conditions will provide enhanced connectivity between the SKR population within the Juliett Training Area on Marine Corps Base Camp Pendleton (MCBCP) and the SKR population on Det. Fallbrook. The desired future condition of the Juliett Fuelbreak includes a relatively smooth surface (no disked furrows) and a forb-dominated grassland with approximately 20 percent bare ground.

The conversion of the Juliett Firebreak to a fuelbreak is planned to occur during fall of 2016. The existing firebreak will be graded to as shallow a depth as possible to remove soil furrows and crowns from past firebreak disking with appropriate water diversion and sloping for erosion abatement. No material is expected to be removed from the site during the grading. The grader will track walk a couple of passes through the area to create artificial trails that may encourage SKR dispersal in the area and provide some heterogeneity in soil compaction. Additional site treatment will involve drilling a minimum of 100 artificial burrows that are 2 inches in diameter and 24 inches deep throughout the project area.

Following topographic restoration of the area, the Navy will use herbicide to control growth of annual grasses in at least the first year following mechanical treatment. The Navy will work with the contractor to determine the best strategy for herbicide application, but the anticipated approach is to use boom applications of a pre-emergent and/or a monocot-specific herbicide to control annual grasses while allowing forbs to colonize the site to provide some vegetative cover and a food source for SKR. Herbicide treatments will be timed appropriately in regard to annual production cycles.

Future vegetation maintenance at the site will consist of mowing and/or additional herbicide application as needed. With regular maintenance and effective control of annual grasses, the Navy expects the need to apply herbicides and the amount per application will decline substantially over time. During periods of cattle grazing, feed and mineral supplements will be placed in the area to attract cattle and focus grazing at the project location. The site will be also

be monitored for erosion problems, and any developing rills will be treated with placement of straw wattles or other erosion best management practices as appropriate.

Monitoring for SKR will continue to occur in accordance with the Integrated Natural Resources Management Plan (INRMP) via annual plot monitoring (three linear plots occur within the Juliett Firebreak) and periodic panel mapping surveys. The gnatcatcher population will also continue to be monitored in accordance with the INRMP via annual monitoring polygons and 5-year stationwide surveys.

Conservation Measures

To reduce the potential direct and indirect adverse effects to listed species and their habitats that may result from the initial site treatment and future maintenance activities for the conversion of the Juliett Firebreak to a fuelbreak, the Navy will implement the following conservation measures (CM):

CM 1. All personnel working at the site will receive an environmental briefing by the Detachment Environmental office prior to the initial site treatment and for future maintenance activities, as appropriate. The briefing will include a discussion of the sensitive species and habitats within the project area and appropriate avoidance and minimization measures.

CM 2. Consistent with the avoidance and minimization measures employed during annual maintenance of the firebreak, the entire project footprint will be surveyed for kangaroo rat sign and active burrows will be identified and pin-flagged in the field within a month of the start of project activities. Burrow locations will be avoided by a minimum of 15 feet during the site restoration and an on-site project biologist will ensure compliance with the burrow avoidance. In the absence of disking or other earth-penetrating activities (*e.g.*, artificial burrows) to maintain the fuelbreak, future burrow avoidance may no longer be implemented during maintenance activities (*e.g.*, mowing, herbicide treatment, stimulants for increased cattle grazing) at the Juliett Fuelbreak.

CM 3. Artificial burrows will be installed a minimum of 30 feet from the nearest kangaroo rat burrow.

CM 4. Initial site preparation will occur outside of the gnatcatcher nesting season (February 15 to August 31). Future fuelbreak maintenance, which is anticipated to occur during the gnatcatcher breeding season, will be confined to the fuelbreak footprint and will not occur within coastal sage scrub (CSS).

CM 5. Only herbicides registered with the U.S. Environmental Protection Agency (EPA) will be used, and all herbicides will be applied in a manner consistent with labeling requirements. Timing and amounts of herbicide application will be limited to that deemed necessary by the Det. Fallbrook Conservation Program Manager to achieve

control of target species. Herbicide application will avoid exposure of SKR and gnatcatchers to these herbicides to the maximum extent practicable.

CM 6. To avoid over-use of herbicide and to ensure complete coverage of the treatment site, a dye will be added to the herbicide solution to clearly demarcate treated and untreated areas.

CM 7. To reduce herbicide drift during spraying, the boom nozzle height will be kept low, approximately 18 inches off the ground, and treatments will only be conducted when wind speed is less than 5 miles per hour.

CM 8. Air pressure in the ATV/tractor tires will be kept low to reduce the pounds per square inch of vehicle pressure on the ground.

CM 9. All work will be conducted during daylight hours.

ENVIRONMENTAL BASELINE

Stephens' Kangaroo Rat

While small portions of the Juliett Firebreak are incorporated into various SKR monitoring efforts on Det. Fallbrook, the entire firebreak is not regularly surveyed and trapped for SKR on an annual basis. Annual pre-disking visual surveys within the firebreak are used to detect and avoid kangaroo rat burrows, but these visual surveys cannot distinguish between SKR burrows and burrows of the closely related Dulzura kangaroo rat (*Dipodomys simulans*); even so, based on these visual surveys, overall kangaroo rat activity in the Juliett Firebreak has declined within recent years. More comprehensive surveys of the Juliett Firebreak conducted in 2015 (Navy 2016) indicate only very limited occupation by SKR (*i.e.*, about 0.9 acre of SKR-occupied habitat) divided between areas at the extreme northern and southern end of the firebreak.

Coastal California Gnatcatcher

Detachment-wide surveys conducted in 2014 detected three gnatcatcher pairs adjacent to the Juliett Firebreak in 2014: one pair just north of the extreme northern end of the firebreak, one pair just west of the extreme southern end, and one pair just west of the midpoint (Navy 2016). While territories for these pairs were not mapped, all three pairs were detected within 150 feet of the Juliett Firebreak, so it is likely that each of these territories abuts or overlaps with the existing firebreak. Despite this likely overlap with the firebreak, it is very unlikely that gnatcatchers nest or forage within the current firebreak footprint because the annual disking prevents the growth of CSS and other vegetation that may be used for nesting and foraging by gnatcatchers.

EFFECTS OF THE ACTION

Stephens' Kangaroo Rat

In the WFMP BO, we determined that with application of the proposed CMs, annual disking of firebreaks on Det. Fallbrook may lead to rare instances of SKR mortality. However, due to the small area of SKR-occupied habitat in the Juliett Firebreak (0.9 acre) and the application of CMs that will greatly reduce the potential to damage active SKR burrows (CM 2, CM 8, CM 9) or otherwise kill or injure SKR, the potential for these initial disking activities to kill, injure, or otherwise adversely affect SKR is discountable (i.e., highly unlikely to occur).

Annual maintenance of the new Juliett Fuelbreak will be conducted in accordance with fuelbreak maintenance activities described in the original WFMP BO (i.e., regular mowing), but maintenance will also include application of herbicides as needed. In the WFMP BO, we determined that regular mowing of fuelbreaks on Det. Fallbrook will not adversely affect SKR. Consistent with our original WFMP BO analysis, we concur that proposed maintenance of the Juliett Fuelbreak through mowing is not likely to adversely affect SKR.

Herbicides will be used during the initial conversion of the Juliett Firebreak to a fuelbreak to reduce annual grasses, and they may be used as a supplementary treatment during subsequent annual maintenance. While most herbicides are considered to be relatively non-toxic to animals based on clinical testing, these herbicides are typically not tested in natural settings on native wildlife (Service 2016); therefore, there is some uncertainty regarding the potential effects on SKR of using herbicides in or near occupied habitat, so the proposed conservation measures and our analysis are based on limiting the exposure of SKR to these herbicides. The Navy will implement CMs (CMs 5 through 9 listed above) to avoid and minimize potential adverse effects of herbicide application on SKR. All herbicides used will be registered with EPA, and their use will be consistent with EPA labeling requirements. Herbicides will only be applied during the daytime when SKR are belowground, so SKR will not be directly exposed to herbicides. In addition, herbicide use will be minimized to the extent possible, will be limited to the fuelbreak footprint, and will be applied in manner to minimize drift; these measures will limit the potential for indirect exposure of SKR to herbicides. While the acreage of SKR-occupied habitat within the fuelbreak is anticipated to increase with successful control of annual grasses, herbicide applications are expected to decline (in frequency and amount of herbicide applied) with successful control of annual grasses; therefore, we anticipate that SKR exposure to herbicides will decline through time. With the proposed measures to limit exposure of SKR to herbicides, the potential for herbicide application to adversely affect SKR is likely to be insignificant (i.e., unable to be meaningfully measured, detected, or evaluated).

Although the drilling of artificial burrows to a depth 24 inches has the potential to damage existing SKR burrows, or in rare cases kill or injure SKR in those burrows, these potential impacts will be avoided by placing artificial burrows at least 30 feet from the nearest kangaroo rat burrow opening (CM 3). Although there are no estimates for SKR burrow complex widths, burrow lengths (*i.e.*, the maximum width of the entire underground burrow complex) for two

closely related kangaroo rat species (*D. nitratoides* and *D. heermanni*) averaged less than 6 feet across, and every burrow complex measured (n = 39 burrow complexes) was less than 20 feet across (Germano and Rhodehamel 1995). Therefore, we anticipate that placement of artificial burrows at least 30 feet from existing kangaroo rat burrow openings will avoid damaging existing SKR burrows and injuring or killing SKR in these burrows. Placement of these burrows should augment SKR colonization of the Juliett Fuelbreak.

According to the WFMP BO, disking within the Juliett Firebreak may have occasionally led to SKR mortality. This potential mortality will be completely avoided at this location once the firebreak is converted to a fuelbreak. In addition, the Navy anticipates that the termination of soil disking will promote conditions more suitable for occupation by SKR. If SKR colonize the fuelbreak more extensively, this will lead to an increase in the number and distribution of SKR on Det. Fallbrook and improve connectivity with the SKR population on MCBCP. This improved connectivity should increase long-term health of each population and allow for recolonization should either population be extirpated. Overall, we anticipate that the conversion of the Juliett Firebreak to the Juliett Fuelbreak will benefit the combined Det. Fallbrook/MCBCP SKR population and is consistent with the recovery objectives for this species.

Based on the analysis above, the proposed modifications to the WFMP are not likely to result in adverse effects to SKR beyond those already addressed by the WFMP BO and, consistent with the WFMP BO, are not likely to result in an appreciable reduction in the numbers, reproduction, or distribution of the SKR on Det. Fallbrook or rangewide.

Coastal California Gnatcatcher

As part of the conversion of the Juliett Firebreak to a fuelbreak, a small (0.1 acre), narrow strip of CSS between the firebreak and the parallel dirt access road will be permanently removed. Although there are three gnatcatcher territories that are adjacent to the firebreak, and possibly overlap with the CSS that will be removed, the amount of CSS that will be removed in any given territory is likely to be substantially less than the 0.1 acre total. Since the amount of CSS removed in any of these three territories is likely to be a relatively small portion of the territory total (gnatcatcher territories average about 5.7 acres near the coast; Atwood *et al.* 1998), the effect of this CSS removal on the three gnatcatcher pairs is likely to be insignificant (i.e., unable to be meaningfully measured, detected, or evaluated).

In our original analysis within the WFMP BO, we determined that annual firebreak and fuelbreak maintenance is not likely to adversely affect gnatcatchers because existing firebreaks and fuelbreaks do not typically contain CSS. Excluding the removal of the small amount of CSS described above, initial conversion activities and eventual maintenance activities are not anticipated to affect CSS. Therefore, consistent with our original WFMP BO analysis, we concur that the initial disking of the firebreak (which is similar to typical firebreak maintenance actions) and future fuelbreak maintenance actions through mowing are not likely to adversely affect gnatcatchers. Herbicides will be used during the initial conversion of the Juliett Firebreak to a fuelbreak to reduce annual grasses, and they may be used as a supplementary treatment during subsequent

annual maintenance. The Navy will implement CMs (CMs 5 through 7 listed above) to avoid and minimize potential adverse effects on gnatcatchers. All herbicides used will be registered with EPA, and their use will be consistent with EPA labeling requirements. Herbicide use will be minimized to the extent possible, will be limited to the fuelbreak footprint, and will be applied in manner to minimize drift; these measures will limit the potential for exposure of gnatcatchers and CSS to herbicides. Considering that gnatcatchers are unlikely to nest or forage in the fuelbreak where herbicides will be applied and the measures proposed to limit exposure of gnatcatchers to herbicides, the potential for herbicide application to adversely affect gnatcatchers is likely to be insignificant (i.e., unable to be meaningfully measured, detected, or evaluated).

Based on the analysis above, the proposed modifications to the WFMP are not likely to result in adverse effects to gnatcatchers beyond those already addressed by the WFMP BO and, consistent with the WFMP BO, are not likely to result in an appreciable reduction in the numbers, reproduction, or distribution of the gnatcatcher on Det. Fallbrook or rangewide.

CONCLUSION

Based on the information provided by the Navy during this consultation, we have determined that the effects to SKR and gnatcatcher from the proposed action are not likely to result in adverse effects to SKR or gnatcatchers beyond those already addressed by the WFMP BO; thus, consistent with our determination in the WFMP BO, the Wildland Fire Management Program on Det. Fallbrook, as hereby amended, will not jeopardize the continued existence of SKR or the gnatcatcher.

With this determination, the interagency consultation requirements of section 7 of the Act have been satisfied. This determination shall be reconsidered if (1) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not previously considered, (2) this action is subsequently modified in a manner that was not considered in this assessment, or (3) a new species is listed or critical habitat designated that may be affected by the action.

We appreciate your coordination on this project. If you have any questions regarding this project, please contact Peter Beck at 760-431-9440, extension 213.

Sincerely,

KAREN GOEBEL
Digitally signed by KAREN GOEBEL
Date: 2016.10.04 09:06:06 -07'00'

Karen A. Goebel
Assistant Field Supervisor

LITERATURE CITED

Atwood, J., S. Tsai, C. Reynolds, and M. Fugagli. 1998. Distribution and population size of California gnatcatchers on the Palos Verde Peninsula, 1993-1997. Western Birds 29:340-350.

Germano, D., and W. Rhodehamel. 1995. Characteristics of kangaroo rat burrows in fallow fields of the southern San Joaquin Valley. 1995 Transactions of the Western Section of the Wildlife Society 31:40-44.

[Navy] U.S. Navy. 2016. Biological Assessment of the Conversion of the Juliett Firebreak to a Fuelbreak at Naval Weapons Station Seal Beach Detachment Fallbrook. June 30, 2016. Prepared by: C.M. Wolf and R.S. Lockwood, Environmental Programs and Services Office, Naval Weapons Station Seal Beach Detachment Fallbrook.

[Service] U.S. Fish and Wildlife Service. 2016, Managing Invasive Plants - Concepts, Principles, and Practices: Management Methods: Chemical Methods. https://www.fws.gov/invasives/staffTrainingModule/methods/chemical/impacts.html